

REMARKS

The present communication is responsive to the Official Action mailed January 11, 2008. A petition for a one-month extension of the term for response to said Official Action, to and including May 11, 2008, is transmitted herewith. As May 11, 2008 was a Sunday, the present response is timely filed with certificate of mailing on or before May 12, 2008.

The specification has been amended to correct a manifest typographical error.

Claim 1 has been amended to state that the step of supplying microbubbles is performed "by introducing the microbubbles into the LA, LV, aorta or a cardiac artery." This consolidates the alternatives set forth in claims 2, 4, and 5, and manifestly does not introduce any new matter into the claim. Step (b) of claim 1 has been amended to further clarify that the step of applying ultrasonic energy is performed so that the tissue is "ablated by the heating," i.e., ablated by the heating due to ultrasonic energy recited earlier in the claim. That is what is normally meant by ultrasonic ablation, as set forth in applicant's entire disclosure.¹

Similarly, claim 7 has been amended to add a "catheter adapted to introduce the microbubbles into the LA, LV, aorta or a cardiac artery." Also, claim 7 has been amended to further specify that the ultrasonic energy application device is adapted to apply ultrasonic energy . . . so as to heat the wall of the heart or the blood vessel and cause ablation" This recitation corresponds to the recitation in claim 1, paragraph (b), and manifestly adds no new matter.

Claims 8 and 12 have been amended for conformity with amended claim 7.

¹ That concept is also set forth in the documents incorporated by reference at paragraph [0004] of the present disclosure. For example, see U.S. Published Patent Application No. 2002/0065512, paragraph [0059] ("Therefore, the heart wall tissue within focal region 44 will be heated rapidly. The rapid heating effectively ablates or kills tissue within the focal region")

Claims 1-12 inclusive were rejected under 35 U.S.C. § 102(b) as assertedly anticipated by U.S. Patent No. 5,722,403 to McGee et al. ("McGee"). Reconsideration and withdrawal of this rejection are respectfully requested. Nothing in McGee has been pointed out as suggesting ablation of any tissue by ultrasonic heating at all. The passage of McGee at column 7, lines 30-50 refers to the use of microbubbles in the context of an ultrasonic imaging operation. Thus, McGee refers to an "image acquisition element 50, which will be called in abbreviated form the IAE." This element is used to generate "visualizing signals representing an image of the area, and objects and tissues that occupy the area" (Col.7 ll.4-8.) The disclosure at column 17, lines 30-50, cited in the Official Action, merely refers to the use of an ultrasonic contrast medium containing microbubbles to enhance the image generated by the IAE or imaging element. See also column 20, lines 34-39.

The only ablation is performed by application of "radiofrequency energy" using an "ablation electrode" (col.20 ll.54-55), or unspecified "various types of ablation energy" (*id.* at ll.48 et seq.). Nothing in McGee suggests the use of ultrasonic ablation of any sort. McGee's use of diagnostic ultrasound manifestly does not involve application of ultrasonic energy "so that myocardial tissue having microbubbles present therein is heated by the ultrasonic energy and ablated by the heat." The only application of ultrasonic energy which is performed by McGee involves application of relatively small amounts of ultrasonic energy for imaging purposes, to find areas which should be treated by a later ablation process, or to image areas which have been previously ablated by a different ablation. Ultrasonic energy applied in an imaging process is, of course, carefully selected so as to avoid damaging tissue, *i.e.*, to avoid ablation. It would require speculation to deduce

whether any heating whatsoever occurs during ultrasonic imaging; but clearly, such heating is not heating so that tissue is "heated by the ultrasonic energy and ablated by the heat," i.e., so that tissue is ablated by the heat applied by the ultrasonic energy. Thus, claim 1 and claims 2-6, dependent thereon, clearly are not anticipated by McGee.

Claim 7 distinguishes over McGee for similar reasons. McGee's ultrasonic energy device is an imaging transducer. It is adapted to apply ultrasonic energy at extremely low doses for imaging purposes, while avoiding ablation. McGee's ultrasonic imaging transducer manifestly is not an ultrasonic energy device adapted to apply ultrasonic energy to the wall of the heart or a blood vessel "so as to heat the wall of the heart or the blood vessel and cause ablation by such heating." Claims 8-12 distinguish over McGee for the same reasons.

As it is believed that all of the objections, rejections, and requirements set forth in the Official Action have been fully met by the foregoing amendments and remarks, favorable reconsideration and allowance of all claims in the application as amended are earnestly solicited.

If, however, for any reason the Examiner does not believe that such action can be taken at this time, it is respectfully requested that the Examiner telephone applicant's attorney at (908) 654-5000 in order to overcome any additional objections which the Examiner might have.

If there are any additional charges in connection with this requested amendment, the Examiner is authorized to charge Deposit Account No. 12-1095 therefor.

Dated: May 12, 2008

Respectfully submitted,

By 

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